

## Protection and Drainage Sheet 3-400

### Three-layer, high quality backfill protection and drainage sheet with high compressive strength for KÖSTER waterproofing of building structures

#### Features

The three-layer KÖSTER Protection and Drainage Sheet 3-400 is a high quality protection and drainage sheet made of a green HD-PE dimple sheet with a filter fleece made of polypropylene mounted to the front side and a blue gliding foil mounted to the back side. Via the space inside, accruing seepage water or retained seepage water can be drained safely to the drainage pipe. The sheet does not rot, it is resistant to impact and to roots, it retains its shape and is resistant to aggressive water and humic acid as well as against bacteria and fungi; it has no negative effects on drinking water and has a high compressive strength.

#### Technical data

Material	green dimpled membrane: HD-PE fleece: PP; blue gliding foil: PE-LD
Application direction	Side facing construction member: blue gliding foil Side facing ground: protective fleece
Area weight	approx. 950 g / m <sup>2</sup>
Compressive strength	approx. 400 kN / m <sup>2</sup>
Dimple height	approx. 8 mm
Air volume between dimples	approx. 5.5 l / m <sup>2</sup>
Water drainage capacity	approx. 3.5 l / (m x s)
Temperature resistance	- 30 °C to + 80 °C

#### Field of application

KÖSTER Protection and Drainage Sheet 3-400 is a high quality protection for horizontal and vertical areas of buildings and construction members with ground contact after the application of waterproofing according to DIN 18195 with e. g. polymer-modified bitumen thick film sealants, cold self-adhesive bitumen membranes or rigid mineral slurries.

The pressure resistant KÖSTER Protection and Drainage Sheet 3-400 is used to pointedly drain the ground (prerequisite: non-cohesive soil) in the immediate vicinity of the building according to DIN 4095. The drainage is ensured by the functionality of the filter fleece which is attached to the filter body.

The information contained in this technical data sheet is based on the results of our research and on our practical experience in the field. All given test data are average values which have been obtained under defined conditions. The proper and thereby effective and successful application of our products is not subject to our control. The installer is responsible for the correct application under consideration of the specific conditions of the construction site and for the final results of the construction process. This may require adjustments to the recommendations given here for standard cases. Specifications made by our employees or representatives which exceed the specifications contained in this technical guideline require written confirmation. The valid standards for testing and installation, technical guidelines, and acknowledged rules of technology have to be adhered to at all times. The warranty can and is therefore only applied to the quality of our products within the scope of our terms and conditions, not however, for their effective and successful application. This guideline has been technically revised; all previous versions are invalid.

#### Application

KÖSTER Protection and Drainage Sheet 3-400 is placed loosely in front of the waterproofing. If the area to be protected is not higher than 1.90 m, then the sheet can be unrolled horizontally. In case of heights above 1.9 m, the sheet is cut to the desired length and installed with an overlap on the sides of at least 10 cm. In the overlapping area, lift up the fleece of the bottom sheet and place it on top of the upper sheet. This will prevent ground from penetrating into the sheet from the side. The upper edge of the sheet must reach at least 15 cm higher than the waterproofing layer. The sheet is fixed in position in this area using KÖSTER SD Fixing Elements. Max. distance between elements is 40 cm. The heads which are included in the delivery prevent the tearing out of the sheet. The lower end of the sheet is lead to the drainage and touches it. To protect KÖSTER SD Sheets from unwanted entry of soil, the KÖSTER SD Edge Profile is installed. If the sheet is placed on horizontal areas, a min. slope of 2% has to be observed. The backfill material should consist out of round gravel. Make sure that the backfill does not contain sharp edged aggregate.

#### Packaging

30 m<sup>2</sup> rolls; Length of rolls: 15 m; Width of rolls: 2 m

#### Storage

Store the material cool and dry; it can be stored indefinitely.

#### Technical guidelines cited

KÖSTER SD Edge Profile	Art.-No. 11.47
KÖSTER SD Fixing Element	Art.-No. 11.49
KÖSTER polymer-modified thick film sealants	Product group 1
KÖSTER rigid mineral waterproofing slurries	Product group 3
KÖSTER KSK membranes	Product group 10